



Matt Blunt, Governor • Doyle Childers, Director

## DEPARTMENT OF NATURAL RESOURCES

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FEB - 1 2006

Mr. Robert L. Davis, Colonel  
U.S. Army, Chief of Staff - FLW  
U.S. Army MANSCEN and Fort Leonard Wood  
ATZT-DPW-EE  
1334 First Street  
Ft. Leonard Wood, MO 64573,

Re: U.S. Army MANSCEN and Fort Leonard Wood, 169-0004  
Permit Numbers: **OP2006-005 through 2006-010**

Dear Colonel Davis:

Enclosed with this letter is your operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

*for* Michael J. Stansfield, P.E.  
Permit Section Chief

MJS:mvb

Enclosures

c: Ms. Tamara Freeman, U.S. EPA Region VII  
Ms. Amy Baker, Kansas City Regional Office  
PAMS File: 169-0004-020A



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**Missouri Department of Natural Resources**  
**Air Pollution Control Program**

## **PERMIT TO OPERATE**

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

**Operating Permit Number:** OP2006-006

**Expiration Date:** 01/31/2011

**Installation ID Number:** 169-0004

**Project Number:** 169-0004-020B

**Installation Name and Address**

U.S. Army MANSCEN and Fort Leonard Wood  
ATZT-DPW-EE  
1334 First Street  
Fort Leonard Wood, MO 64573  
Pulaski County

**Parent Company's Name and Address**

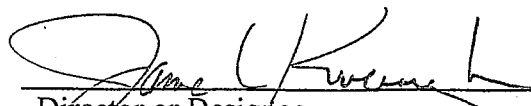
Training & Document Command  
ATBO-SE  
Fort Monroe, VA 23651-5000

**Installation Description:**

U.S. Army MANSCEN and Fort Leonard Wood is a federal military installation in Pulaski County. The operating permit is divided into six documents. This document includes the 577<sup>th</sup> rock quarry crushing plant and the hot mix asphalt plant and associated units.

FEB - 1 2006

\_\_\_\_\_  
Effective Date

  
\_\_\_\_\_  
Director or Designee  
Department of Natural Resources

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

U.S. Army MANSCEN and Fort Leonard Wood is a federal military installation in Pulaski County. The installation is an existing major source of particulate matter less than or equal to ten microns (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), ozone (VOC) and carbon monoxide (CO).

The installation's primary purpose is to train enlisted and officer personnel of all branches of service in basic combat training, military engineering, and motor vehicle operations. The installation includes power plants, rock crushing plants, an asphalt plant, storage vessels, a chemical defense training facility, chemical and military police training schools, dry cleaners, and associated equipment.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM <sub>10</sub> )	Sulfur Oxides (SO <sub>x</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2000	82.88	5.82	73.36	135.86	470.67	--	0.66
2001	81.82	11.39	86.61	114.73	721.41	--	0.09
2002	29.41	3.53	94.46	135.89	168.69	--	0.09
2003	96.14	25.9	116.88	203.81	670.69	--	0.02
2004	155.96	29.07	62.74	158.73	1333.7	--	0.03

### EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emit air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
<b>Overall Installation Activities</b>	
EU1010	577 <sup>th</sup> Quarry Operations
EU1020	Asphalt Plant Operations
<b>Rock Quarry – 577<sup>th</sup></b>	
EU1030	Quarry Belt Conveyor #1
EU1040	Quarry Belt Conveyor #2
EU1050	Quarry Belt Conveyor #3
EU1060	Quarry Belt Conveyor #4
EU1070	Quarry Belt Conveyor #5
EU1080	Quarry Belt Conveyor #6
EU1090	Quarry Belt Conveyor #7
EU1100	Primary Jaw Crusher
EU1110	Secondary Cone Crusher
EU1120	Scalper Screen
EU1130	Triple Deck Screen
EU1140	Diesel Engine #1
EU1150	Diesel Engine #2

**Hot Mix Asphalt Plant**

EU1160                      Drum Dryer  
EU1170                      Asphalt Heater

**EMISSION UNITS WITHOUT LIMITATIONS**

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

Quarry Operations Haul Road – 577<sup>th</sup> (EP23)  
Asphalt Cement Storage  
Load and Unload Fragmented Rock  
Rock Quarry – 577<sup>th</sup> Crushing Plant Variable Speed Grizzly Feeder  
Hot Mix Asphalt Plant Product Bin  
Hot Mix Asphalt Plant Sand/Gravel Conveyor #1  
Hot Mix Asphalt Plant Sand/Gravel Conveyor #2  
Hot Mix Asphalt Plant Sand/Gravel Conveyor #3  
Hot Mix Asphalt Plant Load-Out

**DOCUMENTS INCORPORATED BY REFERENCE**

These documents have been incorporated by reference into this permit.

1. Air Pollution Control Program Construction Permit #062003-015
2. Air Pollution Control Program Construction Permit #082002-024A
3. Air Pollution Control Program Construction Permit #082002-024
4. Air Pollution Control Program Construction Permit #022002-009
5. Air Pollution Control Program Construction Permit #052001-011
6. Air Pollution Control Program Construction Permit #052001-010
7. Air Pollution Control Program Construction Permit #052000-004A
8. Air Pollution Control Program Construction Permit #0794-011
9. Air Pollution Control Program Construction Permit #0392-011

## II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

### Permit Condition PW001

10 CSR 10-6.060

#### Construction Permits Required

Air Pollution Control Program Construction Permit #0392-011

Air Pollution Control Program Construction Permit #082002-024

#### Emission Limitation:

If a continuing situation of demonstrated nuisance dust exists where the presence of particulate matter less than ten microns (PM<sub>10</sub>) in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require USA MANSCEN-FLW to submit a corrective action plan within ten days adequate to timely and significantly mitigate the emission of PM<sub>10</sub>. USA MANSCEN-FLW shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of this permit

#### Monitoring/Record Keeping/Reporting:

1. The permittee shall monitor the requested information in an approved corrective action plan. Note: No monitoring is required if a corrective action plan is not required.
2. The permittee shall keep records of the requested information in an approved corrective action plan. Note: No record keeping is required if a corrective action plan is not required.
3. The permittee shall submit a corrective action plan to the Air Pollution Control Program if required by the Director.

### Permit Condition PW002

10 CSR 10-6.060

#### Construction Permits Required

Air Pollution Control Program Construction Permit #082002-024

#### Equipment and Operation Parameters:

1. USA MANSCEN-FLW shall immediately render inoperable all boilers and/or heaters designed to burn #6 residual oil located in USA MANSCEN-FLW 's Building #645 (EP: FLW 002J, 002K, 002L & 002M).
2. USA MANSCEN-FLW shall immediately render inoperable all woodworking operations located in USA MANSCEN-FLW's Building 1448 (EP: FLW 016).
3. USA MANSCEN-FLW shall immediately render inoperable the hospital waste incinerator (EP: FLW 014) constructed under APCP Permit No. 0590-004.
4. The above removed emission sources may not be operated without first obtaining a New Source Review permit from the APCP.

### Permit Condition PW003

10 CSR 10-6.170

#### Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

#### Emission Limitation:

1. The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of

- origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director; or
2. The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
  3. Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

**Monitoring/Record Keeping:**

The permittee shall conduct and record inspections of its facilities sufficient to determine compliance with this regulation, if required by the Director. If a violation of this regulation is discovered, the source shall undertake corrective action to eliminate the violation.

**Reporting:**

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).



### III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

EU1010 577 <sup>th</sup> Quarry Operations		
Emission Unit	Description	2002 EIO Reference #
EU1010	Equipment/activities associated with the 577 <sup>th</sup> Quarry	NA

Permit Condition EU1010-001
10 CSR 10-6.060 Construction Permits Required Air Pollution Control Program Construction Permit #0392-011

#### **Emission Limitation:**

The total amount of rock crushed, screened or conveyed at this facility shall not exceed 100,000 tons per year. Should a production increase be desired, a new permit application must be submitted in accordance with 10 CSR 10-6.060.

#### **Equipment and Operation Parameters:**

1. Control measures adequate to insure that no violation of the National Ambient Air Quality Standards will occur at any location on property not owned or controlled by the applicant shall be implemented at all times that the quarry operation is active.
2. Haul roads shall be watered whenever vehicular traffic on the road is capable of producing visible emissions off of the haul road.

#### **Monitoring/Record Keeping:**

1. Records shall be kept listing the total amount of rock crushed, screened or conveyed on a monthly basis.
2. These records shall be kept on-site and shall cover, at a minimum, the previous five year period.
3. These records shall be made immediately available to Department personnel upon request.
4. A copy of this permit shall be kept at the plant site and be made immediately available to Department of Natural Resources personnel upon verbal request.

#### **Reporting:**

1. A report of New Source Location form with the requisite maps and drawings shall be submitted to the Air Pollution Control Program twenty-one days prior to relocation of this plant to a site not previously permitted for this installation. For relocation of the plant at a site previously permitted by the Program, the form and required information shall be filed no later than seven days prior to the move.
2. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.
3. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1020 Asphalt Plant Operations		
Emission Unit	Description	2002 EIQ Reference #
EU1020	Equipment/activities associated with the Hot Mix Asphalt Plant	NA

**Permit Condition EU1020-001**

10 CSR 10-6.060

**Construction Permits Required**

Air Pollution Control Program Construction Permit #022002-009

**Emission Limitation:**

1. U.S. Army Maneuver Support Center and Fort Leonard Wood (MSC-FLW) shall not discharge into the atmosphere from this asphalt plant, 15.0 or more tons of PM<sub>10</sub> in any 12-month consecutive period.
2. MSC-FLW shall not discharge into the atmosphere from this asphalt plant, PM<sub>10</sub> emissions in excess of 107.12 pounds during any 24-hour period and the plant is restricted to only operating during the "daylight hours".

**Monitoring/Record Keeping:**

1. MSC-FLW shall maintain an accurate record of the daily, monthly and 12-consecutive months PM<sub>10</sub> emissions into the atmosphere from this asphalt plant and the time of day when the plant is being operated. MSC-FLW shall use Attachment AP-1, *Asphalt Plant – Daily PM<sub>10</sub> Emissions Tracking Record* and Attachment AP-2, *Asphalt Plant – Monthly PM<sub>10</sub> Emissions Tracking Record* or other equivalent form(s) for this purpose.
1. MSC-FLW shall maintain all records required by this permit for not less than five years.
2. MSC-FLW shall immediately make all such records available to any Missouri Department of Natural Resources' (MDNR) personnel upon request.

**Reporting:**

1. MSC-FLW shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of each month, if the 12-month cumulative total records show that the installation exceeded limitation (1.) in the emission limitation section of this permit condition.
2. For any 24-hour period (midnight to midnight) limitation(s) and/or restriction(s) established in this permit, MSC-FLW shall report to the APCP Enforcement Section, no later than ten days after any exceedance or violation of the limitation(s)/restriction(s) by these restricted sources during any 24-hour period.
3. For any "daylight hours" (between sunrise and sunset) operational limitation(s) established by this permit, USAEC-FLW shall report to the APCP Enforcement Section, no later than ten days after any violation of this limitation.

EU1030 through EU1090 Quarry Belt Conveyor #1 Quarry Belt Conveyor #2 Quarry Belt Conveyor #3 Quarry Belt Conveyor #4 Quarry Belt Conveyor #5 Quarry Belt Conveyor #6 Quarry Belt Conveyor #7			
Emission Unit	Description	Manufacturer/Model #	2002 EIQ Reference #
EU1030	Transfer conveyor from the Scalping Screen to the waste stock pile; MHDR = 150 tph; Installed 1967.	Barber-Greene PG-70/SN639	EP23G
EU1040	Transfer conveyor from the Primary Jaw Crusher to Secondary Cone Crusher; MHDR = 150 tph; Installed 1990.	Thunderbird SN697	EP23G
EU1050	Transfer conveyor from the 3 Deck Screen to the Secondary Cone Crusher as part of "re-crush"; MHDR = 150 tph; Installed 1990.	Thunderbird 455143CC3/SN698	EP23G
EU1060	Transfer conveyor from the 3 Deck Screen to the "large" stock pile; MHDR = 150 tph; Installed 1967.	Barber-Greene PG-70/SN701	EP23G
EU1070	Transfer conveyor from the 3 Deck Screen to the "small" stock pile; MHDR = 150 tph; Installed 1962.	Barber-Greene PG-70/PG70x388	EP23G
EU1080	Transfer conveyor from the 3 Deck Screen to the "fines" stock pile; MHDR = 150 tph; Installed 1967.	Barber-Greene PG-70/SN702	EP23G
EU1090	Transfer conveyor from the 3 Deck Screen to the "fines" stock pile; MHDR = 150 tph; Installed 1962.	Barber-Greene PG-70/PG70x261	EP23G

**Permit Condition (EU1030 through EU1090)-001**

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart OOO

Standards of Performance for Nonmetallic Mineral Processing Plants

**Emission Limitation:**

These emission units shall not discharge to the atmosphere any fugitive emissions which exhibit greater than 10% opacity.

**Monitoring:**

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in USEPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
  - a) Observations must be made once per month. If a violation is noted:
    1. Weekly observations shall be conducted for a minimum of eight consecutive weeks. Should no violation of this regulation be observed during this period then-
    2. Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
    3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

**Record Keeping:**

1. The permittee shall maintain records of all observation results (see Attachment B), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions (see Attachment D).
3. The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment C) in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records shall be kept for a period of five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1100 through EU1110 Primary Jaw Crusher Secondary Cone Crusher			
Emission Unit	Description	Manufacturer/Model #	2002 EIQ Reference #
EU1100	Primary Jaw Crushing; MHDR = 150 tph; Installed 1990.	Pioneer (Portec) 3042/SNUH3874	EP23E
EU1110	Secondary Cone Crushing; MHDR = 150 tph; Installed 1990.	El Jay 45" Rollercone	EP23H

**Permit Condition (EU1100 through EU1110)-001**

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart OOO

Standards of Performance for Nonmetallic Mineral Processing Plants

**Emission Limitation:**

Emission units EU1100 through EU1110 shall not discharge to the atmosphere any fugitive emissions which exhibit greater than 15% opacity.

**Monitoring:**

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in USEPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
  - a) Observations must be made once per month. If a violation is noted:
    1. Weekly observations shall be conducted for a minimum of eight consecutive weeks. Should no violation of this regulation be observed during this period then-

2. Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

**Record Keeping:**

1. The permittee shall maintain records of all observation results (see Attachment B), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions (see Attachment D).
3. The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment C) in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records shall be kept for a period of five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1120 through EU1130 Scalping Screen Triple Deck Screen			
Emission Unit	Description	Manufacturer/Model #	2002 EIQ Reference #
EU1120	Preliminary screening unit prior to the primary crusher; Installed 1995.	NA	EP25
EU1130	Screening operation following the secondary crusher; MHDR = 150 tph; Installed 1990.	Thunderbird S1434-14D	EP23F

**Permit Condition (EU1120 through EU1130)-001**

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart OOO

Standards of Performance for Nonmetallic Mineral Processing Plants

**Emission Limitation:**

Emission units EU1120 through EU1130 shall not discharge to the atmosphere any fugitive emissions which exhibit greater than 10% opacity.

**Monitoring:**

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in USEPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

2. The following monitoring schedule must be maintained:
  - a) Observations must be made once per month. If a violation is noted:
    1. Weekly observations shall be conducted for a minimum of eight consecutive weeks. Should no violation of this regulation be observed during this period then-
    2. Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
    3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

**Record Keeping:**

1. The permittee shall maintain records of all observation results (see Attachment B), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions (see Attachment D).
3. The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment C) in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records shall be kept for a period of five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1140 through EU1150 Diesel Engine #1 Diesel Engine #2			
Emission Unit	Description	Manufacturer/Model #	2002 EIQ Reference #
EU1140	Engine used to provide power to the 150 tph plant primary crushing units; MHDR = 0.636 mmBtu/hr; Installed 1990.	John Deere 6076A	EP23I
EU1150	Engine used to provide power to the 150 tph plant secondary crushing units; MHDR = 0.636 mmBtu/hr; Installed 1990	John Deere 3959A	EP23I

**Permit Condition (EU1140 through EU1150)-001**

10 CSR 10-6.260<sup>1</sup>

**Restriction of Emission of Sulfur Compounds**

**Emission Limitation:**

1. Emissions from any existing or new source operation shall not contain more than 500 parts per million by volume (500 ppmv) of sulfur dioxide.
2. Stack gasses shall not contain more than 35 milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.

<sup>1</sup> 10 CSR 10-6.260(4) is state-only.

3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Equipment and Operation Parameters:**

These emission units shall be limited to burning fuel oil no. 2.

**Monitoring/Record Keeping:**

1. The permittee shall maintain an accurate record of the sulfur content for fuel oil no. 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

**Reporting:**

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1160 Drum Dryer		
Emission Unit	Description	2002 EQ Reference #
EU1160	Asphalt plant raw material heating and mixing unit; MDHR = 150 tph; Installed 1995.	EP25B

**Permit Condition EU1160-001**

10 CSR 10-6.060

**Construction Permits Required**

Air Pollution Control Program Construction Permit #022002-009

**Emission Limitation:**

The NSPS Subpart I testing for the drum dryer of the asphalt plant was conducted in June 2001 at production rate of 107.4 tons of asphalt per hour. If MSC-FLW should want to increase this maximum allowable hourly production limitation in the future, they must submit a Proposed Test Plan describing the methods and procedures for conducting the performance testing for review and approval by the APCP. The Proposed Test Plan must be approved by the Director of the APCP prior to conducting the new performance testing.

**Certification Requirements:**

1. The date on which any performance tests are conducted must be prearranged with the APCP at least 30 days prior to the proposed test date so that the APCP may arrange a pretest meeting, if necessary, and to assure that the test date is acceptable for an observer to be present.
2. Any performance testing should be conducted during periods of representative conditions at the maximum process/production rates or within ten percent (10%) of this rated capacity, not to include periods of start-up, shutdown or malfunction. However, if a new performance test is conducted at a rate which is less than 90% of the maximum rated capacity of the equipment (150 tons per hour), then the production rate at which the performance test was conducted shall become the new maximum allowed hourly production rate for the plant.
3. Any such performance tests shall be conducted, and data reduced, in accordance with specified EPA test methods unless an equivalent or alternative test method is approved by the Director of the APCP.

**Monitoring/Record Keeping:**

1. The asphalt plant baghouse must be in use at all times when the associated equipment is in operation. The baghouse and any related instrumentation or equipment shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter which indicates the pressure drop across the baghouse. This gauge or meter shall be located such that it may easily be observed by MDNR employees.
2. Replacement bags for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e., temperature limits, acidic and alkali resistance, and abrasion resistance.)
3. MSC-FLW shall monitor and record the operating pressure drop across the baghouse at least once in every 24-hour period that the equipment is operated. The operating pressure drop shall be maintained within the normal operating range specified by the manufacturer's performance warranty. If the pressure drop reading should fall outside of this normal operating range, then the drum dryer shall be shutdown as quickly as is reasonably practical. Corrective actions shall be taken to address the cause of the non-normal pressure drop and the baghouse shall be returned to normal operation before re-starting the equipment.
4. MSC-FLW shall inspect the baghouse at least once every six months and at a minimum conduct the following activities:
  - a) Check the cleaning sequence of the baghouse for proper operation;
  - b) Thoroughly inspect the bags for leaks and signs of wear;
  - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc.



- d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment; and
  - e) If the plant has not been operated during the preceding six month period, then the above semi-annual checks may be suspended. However, the above checks must be performed before re-starting the plant after such a suspension of operation.
5. MSC-FLW shall maintain an operating, maintenance and inspection log for the asphalt plant baghouse which shall include the following:
- a) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction;
  - b) Any maintenance activities conducted on the unit, such as a bag replacement, replacement of equipment, etc.; and
  - c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.
3. MSC-FLW shall maintain all records required by this permit for not less than five years.
6. MSC-FLW shall immediately make all such records available to any Missouri Department of Natural Resources' (MDNR) personnel upon request.

**Reporting:**

Two copies of a written report of any performance test results must be submitted to the Director of the APCP within 90 days of completion of the testing. The report must include legible copies of raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one sample run.

**Permit Condition EU1160-002**

10 CSR 10-6.070

**New Source Performance Regulations**

40 CFR Part 60 Subpart I

**Standards of Performance for Hot Mix Asphalt Facilities – Particulate Matter**

**Emission Limitation:**

The permittee shall not discharge or cause the discharge into the atmosphere from emission unit EU1160 any gases which contain particulate matter in excess of 0.04 gr/dscf.

**Monitoring/Record Keeping:**

As specified in permit condition EU1160-001.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

**Permit Condition EU1160-003**

10 CSR 10-6.070

**New Source Performance Regulations**

40 CFR Part 60 Subpart I

**Standards of Performance for Hot Mix Asphalt Facilities – Opacity**

**Emission Limitation:**

The permittee shall not discharge or cause the discharge into the atmosphere from emission unit EU1160 any gases which exhibit 20% opacity, or greater.

**Monitoring:**

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
  - a) Observations must be made once per month. If a violation is noted:
    1. Weekly observations shall be conducted for a minimum of eight consecutive weeks. Should no violation of this regulation be observed during this period then-
    2. Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
    3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

**Record Keeping:**

1. The permittee shall maintain records of all observation results (see Attachment B), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions (see Attachment D).
3. The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment C) in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records shall be kept for a period of five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

**Permit Condition EU1160-004**

10 CSR 10-6.260<sup>2</sup>

**Restriction of Emission of Sulfur Compounds**

**Emission Limitation:**

1. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period.
2. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Equipment and Operation Parameters:**

The emission unit shall be limited to burning fuel oil no. 2.

**Monitoring/Record Keeping:**

1. The permittee shall maintain an accurate record of the sulfur content for fuel oil no. 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

**Reporting:**

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

<sup>2</sup> 10 CSR 10-6.260(4) is state-only.

EU1170 Asphalt Heater		
Emission Unit	Description	2002-EIQ Reference #
EU1170	Fuel oil no. 2 heater used to keep asphalt cement at required temperature materials; MDHR = 2.5 mmBtu/hr; Installed 1995.	EP25A

**Permit Condition EU1170-001**

10 CSR 10-3.060

**Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating**

**Emission Limitation:**

The permittee shall not emit particulate matter in excess of the emission limit, in pounds per million BTU of heat input from emission unit EU1170, as defined below.

$$E = 1.31(Q)^{-0.338}$$

where

E = the maximum allowable particulate emission rate in pound per million Btu of heat input; and

Q = the installation heat input in million of Btu per hour.

**Equipment and Operation Parameters:**

These emission units shall be limited to burning fuel oil no. 2.

**Monitoring/Record Keeping:**

1. The permittee shall maintain the installation total heat input and emission limitation calculations.
2. The permittee shall maintain potential to emit calculations in terms of pounds of particulate matter per million BTU of heat input for each fuel type burned in each of the emission unit EU1170.
3. These records shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
4. Attachments E and F contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

**Permit Condition EU1170-002**

10 CSR 10-6.220

**Restriction of Emission of Visible Air Contaminants**

**Emission Limitation:**

1. No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60%.

**Monitoring:**

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating, burning fuel oil and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
  - a) Observations must be made once per month. If a violation is noted:
    1. Weekly observations shall be conducted for a minimum of eight consecutive weeks. Should no violation of this regulation be observed during this period then-
    2. Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
    3. Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

**Record Keeping:**

1. The permittee shall maintain records of all observation results (see Attachment B), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
2. The permittee shall maintain records of any equipment malfunctions (see Attachment D).
3. The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment C) in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records shall be kept for a period of five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
2. Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

**Permit Condition EU1170-003**

10 CSR 10-6.260<sup>3</sup>

**Restriction of Emission of Sulfur Compounds**

**Emission Limitation:**

1. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period.
2. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Equipment and Operation Parameters:**

The emission unit shall be limited to burning fuel oil no. 2.

**Monitoring/Record Keeping:**

1. The permittee shall maintain an accurate record of the sulfur content for fuel oil no. 2. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
2. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

**Reporting:**

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

<sup>3</sup> 10 CSR 10-6.260(4) is state-only.

## IV. Core Permit Requirements

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

### **10 CSR 10-3.030, Open Burning Restrictions**

1. The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
2. Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
3. Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
  - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
  - b) The schedule of burning operations;
  - c) The exact location where open burning will be used to dispose of the trade wastes;
  - d) Reasons why no method other than open burning is feasible; and
  - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
4. Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt U.S. Army MANSCEN and Fort Leonard Wood from the provisions of any other law, ordinance or regulation.
5. The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

### **10 CSR 10-3.090, Restriction of Emission of Odors**

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

**This requirement is not federally enforceable.**

### **10 CSR 10-6.050, Start-up, Shutdown and Malfunction Conditions**

1. In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
  - a) Name and location of installation;
  - b) Name and telephone number of person responsible for the installation;
  - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
  - d) Identity of the equipment causing the excess emissions;
  - e) Time and duration of the period of excess emissions;
  - f) Cause of the excess emissions;
  - g) Air pollutants involved;
  - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
  - i) Measures taken to mitigate the extent and duration of the excess emissions; and

- j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
2. The permittee shall submit the paragraph (1.) information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
3. Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph (1.) list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
4. Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
5. Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

#### **10 CSR 10-6.060, Construction Permits Required**

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

#### **10 CSR 10-6.065, Operating Permits**

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

#### **10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants**

##### **40 CFR Part 61 Subpart M, National Emission Standard for Asbestos**

1. The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
2. The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

#### **10 CSR 10-6.100, Alternate Emission Limits**

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.



**10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information**

1. The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
2. The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
3. The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

**10 CSR 10-6.130, Controlling Emissions During Episodes of High Air Pollution Potential**

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

**10 CSR 10-6.150, Circumvention**

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

**10 CSR 10-6.180, Measurement of Emissions of Air Contaminants**

1. The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
2. The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
3. The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

**10 CSR 10-6.250, Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements**

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

**10 CSR 10-6.280, Compliance Monitoring Usage**

1. The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:

- a) Monitoring methods outlined in 40 CFR Part 64;
  - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Any other monitoring methods approved by the director.
2. Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
- a) Monitoring methods outlined in 40 CFR Part 64;
  - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
3. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
- a) Applicable monitoring or testing methods, cited in:
    1. 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
    2. 10 CSR 10-6.040, "Reference Methods";
    3. 10 CSR 10-6.070, "New Source Performance Standards";
    4. 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
  - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

**Title VI – 40 CFR Part 82, Protection of Stratospheric Ozone**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

## V. General Permit Requirements

### Permit Duration

10 CSR 10-6.065(6)(C)1.B.

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

### General Record Keeping and Reporting Requirements

10 CSR 10-6.065(6)(C)1.C

1. Record Keeping
  - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
  - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
2. Reporting
  - a) The permittee shall submit a report of all required monitoring by:
    1. October 1st for monitoring which covers the January through June time period, and
    2. April 1st for monitoring which covers the July through December time period.
    3. Exception: Monitoring requirements which require reporting more frequently than semi annually, the permittee shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
  - b) Each report must identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
  - c) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.
  - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
    1. Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if you wish to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and that you can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
    2. Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
    3. Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit.
    4. These supplemental reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

#### **Risk Management Plans Under Section 112(r)**

10 CSR 10-6.065(6)(C)1.D.

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

1. June 21, 1999;
2. Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
3. The date on which a regulated substance is first present above a threshold quantity in a process.

#### **Severability Clause**

10 CSR 10-6.065(6)(C)1.F.

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

#### **General Requirements**

10 CSR 10-6.065(6)(C)1.G

1. The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
2. The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
3. The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, will not stay any permit condition.
4. This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
5. The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

#### **Incentive Programs Not Requiring Permit Revisions**

10 CSR 10-6.065(6)(C)1.H.

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

### **Compliance Requirements**

10 CSR 10-6.065(6)(C)3.

1. Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
2. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
  - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3. All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
  - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
  - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4. The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1<sup>st</sup>, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5<sup>th</sup> Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification,
  - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation,
  - c) Whether compliance was continuous or intermittent,
  - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period, and
  - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

### **Permit Shield**

10 CSR 10-6.065(6)(C)6.

1. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
  - a) The applicable requirements are included and specifically identified in this permit; or

- b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2. Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
  - a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
  - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
  - c) The applicable requirements of the acid rain program,
  - d) The administrator's authority to obtain information, or
  - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

### **Emergency Provisions**

#### **10 CSR 10-6.065(6)(C)7.**

- 1. An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7. shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
  - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
  - b) That the installation was being operated properly,
  - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
  - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2. Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

### **Operational Flexibility**

#### **10 CSR 10-6.065(6)(C)8.**

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program and the Administrator at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that established an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1. Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
  - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program and to the Administrator, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are

affected. The permittee shall maintain a copy of the notice with the permit, and this agency shall place a copy with the permit in the public file. Written notice shall be provided to the administrator and this agency at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, The permittee shall provide notice to the administrator and the permitting authority as soon as possible after learning of the need to make the change.

- b) The permit shield shall not apply to these changes.

#### **Off-Permit Changes**

10 CSR 10-6.065(6)(C)9.

1. Except as noted below, The permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide written notice of the change to the permitting authority and to the administrator no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under paragraph (6)(B)3. of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
  - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
  - d) The permit shield shall not apply to these changes.

#### **Responsible Official**

10 CSR 10-6.020(2)(R)12.

The application utilized in the preparation of this was signed by Scott Murrell, Chief, Energy, Environmental, and Natural Resources Division. U.S. Army MANSCEN and Fort Leonard Wood has provided the Missouri Department of Natural Resources with the appropriate supporting documentation designating Ms. Susan S. Halter, Deputy Garrison Commander, as the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.



### **Reopening Permit For Cause**

10 CSR 10-6.065(6)(E)6.

In accordance with 10 CSR 10-6.065(6)(E)6.A., this permit may be reopened with cause if:

1. The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
2. MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
3. Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
4. The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
5. MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

### **Statement of Basis**

10 CSR 10-6.065(6)(E)1.C.

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

## Attachment A

This attachment may be used to help meet the record keeping requirements of Permit Condition PW003 if required.

[illegible]

## Attachment B

This attachment may be used to help meet the record keeping requirements of Permit Conditions: (EU1030 through EU1090)-001, (EU1100 through EU1110)-001, (EU1120 through 1130)-001, EU1160-003, and EU1170-002

[illegible]

Attachment C

This attachment may be used to help meet the record keeping requirements of Permit Conditions: (EU1030 through EU1090)-001, (EU1100 through EU1110)-001, (EU1120 through 1130)-001, EU1160-003, and EU1170-002

Method 9 Opacity Emissions Observations	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from \_\_\_\_\_ to \_\_\_\_\_ % opacity.

Was the emission unit in compliance at the time of evaluation?

YES NO

Signature of Observer

## Attachment D

This attachment may be used to help meet the record keeping requirements of Permit Conditions: (EU1030 through EU1090)-001, (EU1100 through EU1110)-001, (EU1120 through 1130)-001, EU1160-003, and EU1170-002

[illegible]

Attachment E

This attachment may be used to help meet the record keeping requirements of Permit Condition EU1170-001.

Unit Description	Heat Input (Q)
Asphalt heater	2.50 MMBtu/hr
<b>Heat Input (Q) for Project #169-0004-020B</b>	<b>2.50 MMBtu/hr</b>

Total Installation Heat Input	
Heat Input (Q) for Project #169-0004-020A	261.35 MMBtu/hr
Heat Input (Q) for Project #169-0004-020B	2.50 MMBtu/hr
Heat Input (Q) for Project #169-0004-020C	0.00 MMBtu/hr
Heat Input (Q) for Project #169-0004-020E	16.65 MMBtu/hr
Heat Input (Q) for Project #169-0004-020F	64.00 MMBtu/hr
Heat Input (Q) for Project #169-0004-020G	199.89 MMBtu/hr
<b>Total Installation Heat Input (Q)</b>	<b>544.39 MMBtu/hr</b>
PM Allowable Emission Limitation for "New" Units <sup>1</sup> $E = 1.31(Q)^{-0.338}$	0.16 lb PM/MMBtu
PM Allowable Emission Limitation for "Existing" Units <sup>1</sup> $E = 0.90(Q)^{-0.174}$	0.30 lb PM/MMBtu

<sup>1</sup>Compliance calculations for the unit subject to 10 CSR 10-5.030 can be found in Attachment F.

Attachment F

This attachment may be used to help meet the record keeping requirements of Permit Condition EU1170-001.

Unit	Fuel	Maximum Hourly Design Rate <sup>1</sup>	Emission Factor <sup>2</sup>	Boiler Heat Capacity (MMBtu/hr)	Potential Emission Rate <sup>3</sup> (lbs/MMBtu)	Emission Limitation (lbs/MMBtu)
EU1170	Fuel Oil No. 2	0.0179	2.0	2.5	0.01	0.16

<sup>1</sup>Natural Gas: 1050 MMBtu/MMCF

Units: MMCF/hr

Fuel Oil: 140 MMBtu/10<sup>3</sup> gallons

Units: 10<sup>3</sup> gallons/hr

<sup>2</sup>Natural Gas: Emission Factor Source = AP42 Sec 1.4 (7/98)

Units: lb PM/MMCF

Fuel Oil: Emission Factor Source = AP42 Sec. 1.3 (9/78)

Units: lb PM/10<sup>3</sup> gallons

<sup>3</sup>Potential PM Emission Rate = Max. Hourly Design Rate (units/hr) \* Emission Factor (lb/units) \* (1/Boiler Heat Capacity [MMBtu/hr])

Attachment G

This Attachment is used to verify compliance with the limitations of 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds.

Emission Unit	Emission Unit Description		SO <sub>2</sub> Emission Factor (lb/MMBtu) <sup>1</sup>	SO <sub>2</sub> Emissions (lb/MMBtu)	SO <sub>2</sub> Limit (lb/MMBtu)
EU1160	Drum Dryer	Diesel Fuel Oil	0.52 AP42 Tbl 1.3-1 (09/98)	0.52	8.0
EU1170	Asphalt Heater	Diesel Fuel Oil	0.52 AP42 Tbl 1.3-1 (09/98)	0.52	8.0

<sup>1</sup>SO<sub>2</sub> emission factor converted 71 lb/10<sup>3</sup> gal to lb/MMBtu by dividing by 137 mmBTU/10<sup>3</sup> gal for Diesel Fuel.

Emission Unit	Emission Unit Description		SO <sub>2</sub> Emission Factor (lb/MMBtu) <sup>1</sup>	SO <sub>2</sub> Emissions (ppmv) <sup>2</sup>	SO <sub>2</sub> Limit (ppmv)
EU1140	Engine #1	Diescl	0.29	169	500
EU1150	Engine #2	Fuel Oil	AP42 Tbl 3.3-1 (10/96)		

<sup>1</sup>S = the sulfur content of the fuel  
<sup>2</sup>General Equation: ppmv SO<sub>2</sub> = SO<sub>2</sub> Emission Factor ÷ F factor ÷ Conversion Factor  
 1. The SO<sub>2</sub> emission factor is the emission factor presented in the following table. It assumes that all of the sulfur in the fuel is converted to SO<sub>2</sub> emissions.  
 2. The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For fuel oil the F factor is 10,320 wscf/MMBtu. For natural gas the F factor is 10,610 wscf/MMBtu. (40 CFR Part 60 Appendix A Method 19 Tbl 19-1).  
 3. The conversion factor is 1.660E-7lb/scf per ppmv (40 CFR Part 60 Appendix A Method 19).

Sulfur emissions in the form of SO<sub>3</sub> converted from SO<sub>2</sub> are considered insignificant and it is highly unlikely that the limitations of 10 CSR 10-6.260(3)(B) will ever be exceeded.



Attachment AP-1

***Asphalt Plant – Daily PM<sub>10</sub> Emissions Tracking Record***

This attachment may be used to help meet the record keeping requirements of Permit Condition EU1020-001.

FIPS-Plant No.: 169-0004

U.S. Army Engineer Center and Fort Leonard Wood, Fort Leonard Wood, MO 65473-8944;  
Pulaski County, S21, T35N, R8W

Date	Daily Start Time (Hours)	Daily Stop Time (Hours)	Daily Asphalt Production (Tons)	Composite PM <sub>10</sub> Compliance Factor (Lbs/Ton) *	Daily PM <sub>10</sub> Emissions (Lbs)	Date	Daily Start Time (Hours)	Daily Stop Time (Hours)	Daily Asphalt Production (Tons)	Composite PM <sub>10</sub> Compliance Factor (Lbs/Ton) *	Daily PM <sub>10</sub> Emissions (Lbs)
Sum of Daily Asphalt Production for Month (Tons):						Sum of Daily Asphalt Production for Month (Tons):					

\* Sum of emission factors of all asphalt processes, taking any controls into account. The Composite PM<sub>10</sub> Compliance Factor calculated for this operation as of the time of the issuance of this permit is 0.1269 Lbs/Ton.

NOTE: The daily PM<sub>10</sub> Emissions (Lbs) can be obtained by multiplying the Daily Asphalt Production (Tons) by the Composite PM<sub>10</sub> Compliance Factor (Lbs/Ton). A daily PM<sub>10</sub> Emission rate of no more than 190.37 pounds per day indicates compliance (1,500 tons of asphalt production per day).

\*\*\* Sum of last 12-months of Column 3. NOTE: A 12-Month Total PM<sub>10</sub> emissions of less than 15.0 tons for Column 4 indicates compliance. This limitation equates to a maximum production rate of 236,378 tons of asphalt during any consecutive 12-month period.

# STATEMENT OF BASIS

## Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1. Part 70 Operating Permit Application, received May 15, 1997;
2. 2000 Emissions Inventory Questionnaire, received April 2, 2001, revised May 25, 2001;
3. U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
4. Air Pollution Control Program Construction Permit #072003-022;
5. Air Pollution Control Program Construction Permit #062003-005;
6. Air Pollution Control Program Construction Permit #082000-006;
7. Air Pollution Control Program Construction Permit #082000-004;
8. Air Pollution Control Program Construction Permit #1099-001C;
9. Air Pollution Control Program Construction Permit #1099-001B;
10. Air Pollution Control Program Construction Permit #1099-001A;
11. Air Pollution Control Program Construction Permit #1099-001;
12. Air Pollution Control Program Construction Permit #0999-015;
13. Air Pollution Control Program Construction Permit #0699-002;
14. Air Pollution Control Program Construction Permit #0998-032;
15. Air Pollution Control Program Construction Permit #0897-013;
16. Air Pollution Control Program Construction Permit #0697-003;
17. Air Pollution Control Program Construction Permit #0895-030;
18. Air Pollution Control Program Construction Permit #0695-010A;
19. Air Pollution Control Program Construction Permit #0695-010;
20. Air Pollution Control Program Construction Permit #0495-013A;
21. Air Pollution Control Program Construction Permit #0495-013;
22. Air Pollution Control Program Construction Permit #0294-007A;
23. Air Pollution Control Program Construction Permit #0294-007;
24. Air Pollution Control Program Construction Permit #0891-003;
25. Air Pollution Control Program Construction Permit #0790-007;
26. Air Pollution Control Program Construction Permit #0590-004;
27. Air Pollution Control Program Construction Permit #0983-019;
28. Air Pollution Control Program Construction Permit #0979-030;
29. Air Pollution Control Program Construction Permit #0879-(010-011);
30. Air Pollution Control Program Construction Permit #0179-(006-016).

## Applicable Requirements Included in the Operating Permit but Not in the Application

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

1. 10 CSR 10-6.180, *Measurement of Emissions of Air Contaminants*,  
This rule has been included in the operating permit in order to provide citing for the allowance of requests for emissions data results. On past forms issued by the Air Pollution Control Program, including the application for this permit, it was automatically marked as an administrative rule not required to be listed as an applicable

requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit as a core permit requirement.

2. 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.  
10 CSR 10-3.080, *Restriction of Emission of Visible Air Contaminants*, has been rescinded and removed from the SIP. It has been replaced by 10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants*, which is an applicable requirement in the operating permit.
3. 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*  
This rule has essentially replaced 10 CSR 10-3.100, *Restriction of Emission of Sulfur Compounds*, and 10 CSR 10-3.150, *Restriction of Emission of Sulfur Compounds From Indirect Heating Sources*. It has been determined to be applicable to the installation and therefore has been included in the operating permit.
4. 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*  
10 CSR 10-3.050, *Restriction of Emission of Particulate Matter from Industrial Processes*, has been rescinded and removed from the SIP. It has been replaced by 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes*, which is an applicable requirement in the operating permit.

#### **Other Air Regulations Determined Not to Apply to the Operating Permit**

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

- 10 CSR 10-6.240, *Asbestos Abatement Projects – Registration, Notification, and Performance Requirements*.  
This rule has been determined not to apply to the installation and omitted from the operating permit.

#### **Construction Permit Revisions**

The following revisions were made to construction permits for this installation:

1. Special Condition 2 of the quarry-specific special conditions in Air Pollution Control Program Construction Permit #0392-011 (Operating Permit Condition EU1010-001) was modified from a 24-month record keeping period to a 5-year Record Keeping period. Per Title V guidelines for record keeping, all records associated with the special conditions of the construction permits are to be kept for five (5) years and to be made available upon departmental request.
2. Special Condition 4 of the quarry-specific special conditions in Air Pollution Control Program Construction Permit #0392-011 references 10 CSR 10-6.170. This wording was not specifically included in the operating permit since 10 CSR 10-6.170 is an applicable regulation and, as such, is included in the operating permit.

#### **NSPS Applicability**

1. 40 CFR Part 60, Subpart I applies to the drum dryer (EU1160) at the hot mix asphalt plant. The particulate matter loading and opacity limitations set forth in the subpart are more stringent than Missouri's opacity (10 CSR 10-6.220) and particulate matter (10 CSR 10-6.400) rules. As such, these two Missouri regulations were not included as applicable requirements for the drum dryer. In addition, none of the other units at the plant have stack emissions. As such, this subpart does not apply to any other emission units within the asphalt plant.
2. 40 CFR Part 60, Subpart OOO applies to the conveyors (EU1030 – EU1090), the crushers (EU1100 – EU1100) and the screens (EU1120 and EU1130). The opacity requirements in the subpart are more stringent than Missouri's opacity rule (10 CSR 10-6.220). As such, 10 CSR 10-6.220 was not included as an applicable requirement for these emission units. In addition, the applicability section of Subpart OOO

only includes enclosed truck loading operations. Since the loading and unloading of fragmented rock at the crushing plants is not an enclosed operation, Subpart OOO was deemed not to apply to that activity.

### **MACT Applicability**

Currently, there are no MACTs that apply to the emission units covered under this permit.

### **NESHAP Applicability**

40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*, applies to the installation because of the renovation and demolition parts of the subpart which makes the subpart applicable to all sources. It is included as a core permit requirement.

### **Other Regulatory Determinations**

1. The units listed in the "Emission Units Without Limitations" section in the front of this permit either have no applicable regulations associated with them or are considered insignificant activities by the operating permit application.
2. 10 CSR 10-6.170, *Restriction of Particulate Matter to the Ambient Air Beyond the Premise of Origin*, is applicable to the installation. Due to the size and unique geographical aspects of the installation it is highly unlikely that the installation will ever exceed the emission limitations of 10 CSR 10-6.170, therefore no monitoring, record keeping and reporting is necessary unless required by the Director.
3. 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, is applicable to the asphalt heater and is included in this Part 70 operating permit. 10 CSR 10-6.220 does not, however, apply to the generators as internal combustion units are specifically exempted from the rule. This rule was not applied to any emission units specifically exempted from 10 CSR 10-6.400 as particulate matter emissions are not of significant quantity to result in opacity issues.
4. 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*. Attachment G represents compliance calculations necessary to verify compliance with this regulation.
5. 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter*, was not included as an applicable regulation for the asphalt heater since indirect heating is specifically exempted by the rule. The generators are also exempted from 10 CSR 10-6.400 because the rule specifically states that liquid and gaseous fuels are not to be considered in determining the "process weight" introduced into the emission unit. In addition, the crushing and screening operations at the crushing plants are not subject to 10 CSR 10-6.400 since they are specifically exempted in the rule. The emission units listed in Table SB-1 are also exempt from the process weight rate rule because potential uncontrolled particulate matter emissions are less than 0.5 pounds per hour per 10 CSR 10-6.400.
6. 10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*. Attachments E and F represent emission limit and compliance calculations necessary to verify compliance with this regulation.
7. Several Air Pollution Control Program Construction Permits have been issued to various emission units associated with this Title V permit. However, not all were included in this permit for the following reasons.
  - a) Air Pollution Control Program Construction Permit #0891-003 was issued for a crushing and screening plant. However, this plant was never put into operation and such the special conditions of the construction permit were not included in this Title V permit.

- b) Air Pollution Control Program Construction Permit #0790-007 was issued for the 150 tph crushing plan included in the Title V permit. However, Air Pollution Control Program Construction Permit #0392-01 superceded the special conditions of this construction permit.

**Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis**

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

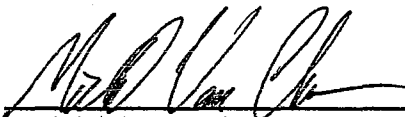
  
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Michael Van Cleave  
Environmental Engineer

Table SB-1

Emission Unit	Maximum Hourly Design Rate <sup>1</sup> (tons/hr)	PM Emission Factor (lb/ton)	Emission Factor Reference	Potential Uncontrolled PM Emission Rate <sup>3</sup> (lb/hr)
Load and Unload Fragmented Rock	150	3.36E-5	AP42 Tbl 11.19.2-2 fn c	0.01
Quarry Conveyor Belt #1	75	0.00294	AP42 Tbl 11.19.2-2 fn c	0.22
Quarry Conveyor Belt #2	75	0.00294	AP42 Tbl 11.19.2-2 fn c	0.22
Quarry Conveyor Belt #3	75	0.00294	AP42 Tbl 11.19.2-2 fn c	0.22
Quarry Conveyor Belt #4	75	0.00294	AP42 Tbl 11.19.2-2 fn c	0.22
Rock Quarry – 577 <sup>th</sup> 150 tph Crushing Plant Variable Speed Grizzly Feeder	150	0.00294	AP42 Tbl 11.19.2-2 fn c <sup>2</sup>	0.44
Rock Quarry – 577 <sup>th</sup> 75 tph Crushing Plant Feeder	75	0.00294	AP42 Tbl 11.19.2-2 fn c <sup>2</sup>	0.22
Rock Quarry – 577 <sup>th</sup> 75 tph Crushing Plant Roll Box	75	0.00294	AP42 Tbl 11.19.2-2 fn c <sup>2</sup>	0.22
Hot Mix Asphalt Plant Product Bin	50	5.86E-4	AP42 Tbl 11.1- 14 (12/00)	0.03
Hot Mix Asphalt Plant Sand/Gravel Conveyor #1	50	0.00294	AP42 Tbl 11.19.2-2 fn c	0.15
Hot Mix Asphalt Plant Sand/Gravel Conveyor #2	50	0.00294	AP42 Tbl 11.19.2-2 fn c	0.15
Hot Mix Asphalt Plant Sand/Gravel Conveyor #3	50	0.00294	AP42 Tbl 11.19.2-2 fn c	0.15
Hot Mix Asphalt Plant Load-Out	50	5.22E-4	AP42 Tbl 11.1- 14 (12/00)	0.03

<sup>1</sup>MHDR's obtained from Air Pollution Control Program Construction Permit #1099-001 except as follows:

Quarry Belt Conveyors #1-#4: assume total rate provided in Permit #1099-001 divided by 4 conveyors

Variable Seed Grizzly Feeder, Feeder & Roll Box: assume same rate as respective plants overall

Hot Mix Asphalt Plant: dryer limited to 50 tph based on stack test; use as rate for entire plant

<sup>2</sup>Assume same as conveyor transfer point

<sup>3</sup>Potential PM Emission Rate = MHDR (tons/hr) x Emission Factor (lb/ton)